

An electronic newsletter from the Massachusetts Division of Ecological Restoration

Ebb&Flow #23 March, 2015

An electronic newsletter from the Mass. Department of Fish and Game's Division of Ecological Restoration (DER)

http://www.mass.gov/der

Welcome Letter

Feature Article

DER News and Project Updates

Grant, Prize, Contest, Fellowship, Award and Fundraising Opportunities

Calendar

On-line Resources

Non-Governmental On-line Resources

Publications, etc.

Last but not Least

Greetings, restoration friends and colleagues:

Partnerships are a powerful way to leverage resources. If you construct a solid platform, add the right materials, and assemble hard-working partners, you can use the might of your team to lift much more than you could by yourself. This is the case for the Tidmarsh Restoration Project in Plymouth, the largest freshwater restoration effort underway in the Commonwealth. The state's early investment of \$200,000 had leveraged \$2.16 million in outside funds, a ratio of over 10 to 1. The U.S. Fish and Wildlife Service recently added \$790,000 in federal funding to this total, putting the project "over-the-top". Construction is scheduled to start in a few months. Details of this impressive, partner-driven project is the subject of our lead article. In the meantime, you can learn what else DER and its partners have been up to over the past year in DER's 2014 Annual Impact Report: Personal Connections.

As the snow melts, it's time to get outdoors, and the *2015 Massachusetts Rivers and Wetlands Months Calendar*, covering river- and wetland-related paddles, hikes, festivals and other events taking place in the Commonwealth between **April 25-July 5, 2015**, will soon provide ample opportunities to end your hibernation. We expect to post this online by Earth Day (Wednesday, April 22). There's still some time to come up with a river- or wetland-related event if you don't already have something planned (click here to see the *2014 Calendar* for ideas). Send info (a web link to the event will do) for inclusion in the *Calendar* to Russ Cohen (russ.cohen@state.ma.us).

See you on the water -- Sincerely,

Tim Purinton, Director

DER receives Public Service Award from the Massachusetts Association of Conservation Commissions



DER and MACC people at the Awards Ceremony in Worcester. From L-R: Russ Cohen, DER; Beth Lambert, DER; Brandon Faneuf, MACC; Nick Wildman, DER (holding the award); Tim Purinton, DER; Hunt Durey, DER; and Kate Connolly, MACC.

DER was recently honored with an **Outstanding Public Service Award** by the <u>Massachusetts Association of Conservation Commissions</u> (MACC). The award was presented at the MACC's <u>2015 Annual Environmental Conference</u>, which took place on February 28 at the College of the Holy Cross' Hogan Campus Center in Worcester. DER values our partnerships with cities and towns and especially the citizen volunteers that work to protect and restore wetlands and rivers. Thank you MACC. To see a recap of our 2014 accomplishments, check out the <u>DER 2014 Annual Report</u>.

> Return to top of document

Restoration in the News

- The Winter, 2015 issue of Trout, the magazine of Trout Unlimited (TU), contains an article (on p.64) about a \$20,000 Mass. Environmental Trust grant received by TU's SEMass Chapter to help fund the restoration of Red Brook in Wareham to enhance its ability to support sea-run (aka "salter") brook trout spawning habitat. Century Bog, a cranberry bog through which Red Brook flows, will be decommissioned and restored to a natural wetland. DER and MassWildlife are partnering with the TU chapter on this project.
- The <u>Fall, 2014 issue of *Trout*</u> included an article (on p. 68) reporting on the <u>TU Nor'east Chapter</u>'s recent replacement of a culvert over Crooked Pond Brook in Boxford, MA to restore stream connectivity and benefit native brook trout.
- The March 15, 2015 edition of *Solutions Journal*, a peer-reviewed journal with the mission of "solving the mounting environmental, social, and economic problems of our time", contains an article written by Cathy Bozek of The Nature Conservancy entitled *Removing Dams: Benefits for People and Nature*. The article focuses on dam removal in Massachusetts and the Mill River Restoration Project in particular. DER is a lead partner in this project (click here for more info).
- The January 4, 2015 edition of the *Barre Montpelier Times Argus* included a guest editorial written by David Deen of the Connecticut River Watershed Council highlighting the ecological and fiscal benefits of right-sized culverts and floodplains.

- An article in the January 7, 2015 edition of the *Patriot Ledger* reported on a Norwell Conservation Commission meeting at which DER's Nick Wildman spoke in favor of the removal of the Tack Factory Pond Dam and the improvement of migratory and other fisheries habitat in Third Herring Brook. *Wicked Local Hanover* also reported on the proposed dam removal on January 14.
- An article in the January 2, 2015 edition of the *Berkshire Eagle* reported on progress made by <u>Hoosic River Revival</u> on the selection of a design team to prepare working drawings for a proposed modification of a section of flood chutes in North Adams to enable naturalization of the river while maintaining adequate flood control and providing economic development. Two later articles (click <u>here</u> and <u>here</u>) reported on the selection of the design team, with Inter-Fluve and Sasaki Associates as its leading members, and the 2/14/15 edition of the *Greylock Independent* included a profile of Hoosic River Revival founder Judy Grinnell. [See more about this Hoosic River project in the <u>DER Updates</u> section below.]
- An <u>article in the January 13, 2015 edition of the Lowell Sun</u> reported on an event taking place at the <u>Nashua River Watershed Association</u> in Groton the previous day at which Congresswoman Nikki Tsongas announced federal funding for a study proposing to add a section of the Nashua River and several of its tributaries to the federal Wild and Scenic River System. Tim Purinton attended the event for DER.
- The proposed <u>Herring River Estuary Restoration Project</u> in Wellfleet was recently covered in the press several times, both <u>in advance of</u>, and <u>following</u>, several public meetings in early February regarding proposed changes to several public roads relating to the restoration project. The <u>Friends of Herring River</u> has also posted <u>info relating to the proposed work</u> on its website. [Click <u>here</u> to download a new two-page fact sheet on this project.]



Feature Article:

Major Funding Announcement and Event at Tidmarsh Farms



Federal, state and local officials and others taking part in the grant announcement at Tidmarsh Farms in Plymouth.

On February 27th, 2015, dignitaries from local, state, federal, and non-governmental organizations joined with the landowners, neighbors, press, and the Tidmarsh Farms project team to celebrate important news. The U.S. Fish and Wildlife Service (USFWS) recently awarded approximately \$800,000 to DER for project implementation through the National Coastal Wetlands Conservation Grant Program (click here to read the USFWS press release from 1/7/15 announcing the grant). Along with the \$1.9 million already pledged by the U.S. Department of Agriculture's Natural Resource Conservation Service (NRCS), fundraising for the largest freshwater wetlands restoration project to date in Massachusetts appears to be complete. [Click here to read advance press coverage and here to read a press release from the Mass. Executive of Energy and Environmental Affairs (EEA) about the 2/27/15 event.]

Moderated by DER Director Tim Purinton, and held inside a working barn at Tidmarsh Farms (a former commercial cranberry farm), the event included remarks from new EEA Secretary Matthew Beaton and newly-appointed Department of Fish and Game Commissioner George Peterson. Other speakers included USFWS Regional Director Wendi Weber, USDA NRCS State Conservationist Christine Clarke, Mass. Audubon President Henry Tepper, NOAA Habitat Restoration Coordinator Eric Hutchins, and Plymouth Board of Selectmen Chair Ken Tavares. Mass. State Senator Vinny deMacedo and State Representative Matt Muratore both spoke of the extensive ecological restoration work to date in the Town of Plymouth, and credited the landowners for allowing Tidmarsh Farm to go back to its natural state.



Alex Hackman of DER leading a site walk following the announcement of additional federal funding for the Tidmarsh project.

This event marked an important milestone for a flagship DER wetlands restoration project. After first becoming involved in 2010, DER has played a lead role in project management, restoration design, fundraising, permitting, and more. Now, the project sits poised to begin implementation this summer. Since 2010, DER has promoted a science-based approach to the ecological restoration of the property that involved detailed site assessment, identification of limiting factors to ecological recovery, and development of coordinated responses. Future conditions across the 250-acre restoration area are expected to include multiple habitat types, free movement of fish from ocean to headwaters, and restored connectivity with the surrounding forests. Most importantly, this work will promote dynamic, self-adjusting conditions that will allow the site evolve with climate change and sea level rise.

In parallel with the restoration plan, monitoring and learning efforts of the <u>Living Observatory</u> (LO) continue to grow and evolve. Our congratulations to LO for moving from dream to reality over the past several years! Check back for more updates, including hopefully future news about expanded Mass. Audubon involvement on site. Readers can also now follow LO on Facebook: https://www.facebook.com/LivingObservatory.

DER is grateful to the landowners, the Town of Plymouth, USFWS, NOAA, NRCS, Mass. Audubon, American Rivers, the Mass. Bays Program, Inter-Fluve, Inc., and the numerous academic institutions who have been close partners in this evolving adventure in land protection and ecological restoration. For more information, please visit the project website at www.tidmarshfarms.com and check back regularly for updates. Readers are also welcome to contact DER project manager Alex Hackman at (617) 626-1548, or alex.hackman@state.ma.us.

> Return to top of document

Division of Ecological Restoration News and Project Updates

Restoration Project Updates

By Nick Wildman, DER Priority Projects Coordinator

Our restoration projects have been chugging along under the onslaught of snowstorm after snowstorm. Spring is right around the corner and, thanks to hard work by our partners, our projects will hit the ground running.

Plymco Dam Removal Proceeds through Winter

Following the demolition of the Plymco Dam, on Town Brook in Plymouth, workers from D&C Construction of Rockland charged forward to complete most of the channel restoration before the worst of this winter's snow hit. Thanks to their hard work and guidance from the engineers at Milone & MacBroom, Inc., the team completed an amazing amount of work before the site was buried under four feet of snow. The footings for the new bridge were poured just weeks ago. Next, the arch span will be installed, and channel restoration will complete just in time for the herring run in April. We are already looking forward to the site greening up with native plants. Stay tuned for info about the **Celebration Event**, planned to coincide with **Plymouth's Herring Festival** (click here for info on the 2014 Festival).



Pouring the footings for the new bridge at the former location of the Plymco Dam in Plymouth.

Plowing Through Permitting- Shawsheen River and Third Herring Brook

While the cold winds blow and the snow piles up, DER and our partners have been hard at work obtaining the permits needed for some of our more advanced projects. In Andover, we are working with the Center for Ecosystem Restoration, the Town of Andover, and Atria Senor Living to remove two dams on the mainstem of the Shawsheen River. After five years of project development, engineering, and fundraising, this winter finds us in the thick of permitting. The project team has been coordinating review by the Andover Conservation Commission, MassDEP, the U.S. Army Corps of Engineers, and MA DCR's Office of Dam Safety. In addition, with support from NOAA Fisheries and the U.S. Fish and Wildlife Service, we have been working toward a final plan to honor the history of these two sites.

Meanwhile, we are hopeful that 2015 will be the last year that the Tack Factory Dam blocks herring, American eel, and other fish moving into Third Herring Brook from the North River. DER and our partners at the Cardinal Cushing Centers (who own the dam), the North and South Rivers Watershed Association, and NOAA Fisheries have secured permits from the Hanover and Norwell Conservation Commissions [the Brook forms the town line]. Next we will take on the other permit filings, as we continue to raise funds for the dam removal.



The spillway of Tack Factory Dam on Third Herring Brook in Hanover/Norwell.

Hoosic River Flood Chute Naturalization Priority Project Update

by Cindy Delpapa, DER Stream Ecologist



Community members meet with consultants to provide input on a concept restoration design for the South Branch Hoosic River in North Adams.

The Hoosic River revitalization effort has entered an exciting and significant phase in the long-term effort to naturalize the highly engineered channels of the North and South Hoosic Branches of the Hoosic River in North Adams. Over the coming months, the design team contracted by DER, Inter-Fluve, Inc. and Sasaki Associates, will work with the community to develop an overarching concept design for the South Branch of the river. Once the more expansive design is in place, the team will focus on a carefully selected pilot project area to craft a more detailed plan. Once this plan is completed, the project can move on to permitting and working with the Army Corps of Engineers to gain authorization to modify the flood channel.

The city wants to reclaim its hidden river and capitalize on its potential as a multi-faceted resource. The revitalization work is the vehicle to achieve this goal. The pilot project will be the first river revitalization implementation for North Adams. The design must provide comparable flood protection while also improving habitat, water quality, aesthetics, and connections to the community.

The work is off to a strong start despite weather related challenges. The Design Team has already met with the community to gather input and ideas for the design. Survey work has begun despite the mountains of snow and frigid temperatures. A concept design for the South Branch should be ready in a matter of weeks, with the Pilot Project 50% design following soon after.

Flow Program Update

SWMI grants to advance DER and Partners' Flow Restoration priorities

by Laila Parker, Flow Restoration Program Manager

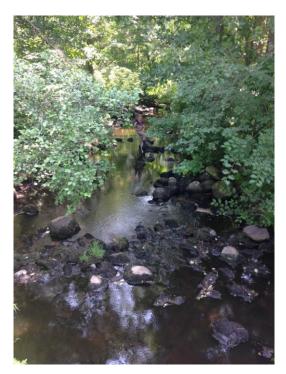
In late February, the Mass. Department of Environmental Protection (MassDEP), pursuant to its ongoing role in the <u>Sustainable Water Management Initiative</u> (aka SWMI), awarded nearly \$755,000 in grants to help twelve communities with projects designed to meet water supply needs and ensure healthy waterbodies, via the third round of the **Sustainable Water Management Initiative (SWMI) Grant Program**. [Click <u>here</u> to read the press release, and <u>here</u> to download info on the grant awards.] Three of these awards will advance DER and partners' ongoing flow restoration projects.

▶ The Town of Halifax received \$57,450 to assess the feasibility of making the Stump Brook dam operable via the City of Brockton's remote control system, to enable the City to make its required releases remotely. This follows on

a recommendation from a 2013 SWMI grant-funded study. DER is currently funding a study to assess options for additional releases over the Stump Brook dam, beyond Brockton's current requirements, to support downstream needs and upstream water quality improvements. We expect to work closely with Halifax and its consultant to dovetail the recommendations of these two studies.

Stump Brook Dam, Halifax, MA, showing low-level outlet control structure.





► The Town of Norwell received \$59,910 to work with the Town of Hanover, the North and South Rivers Watershed Association (NSRWA), and DER to conduct modeling to better understand water movement within the Third Herring Brook watershed. DER's RIFLS program has worked with NSRWA and their volunteers to monitor Third Herring Brook streamflow since 2008, documenting lengthy lowflow periods and relative flow depletion downstream of the town's wells. We look forward to being a part of this study and helping partners to build on the grant-funded model to develop and implement a future management plan for protecting the brook's water resources.

DER staff measuring low flows in Third Herring Brook in July 2014, downstream of Norwell and Hanover's wells.

▶ The Town of Kingston received \$43,000 to support design work for replacing the culvert on the Jones River at Lake Street with a structure that meets the Massachusetts Stream Crossing Standards. The current culvert, under a street leading to the Silver Lake Regional High School, is not large enough to pass flood flows (see photo). It also likely represents a velocity barrier to fish migration, an issue which would become more significant if partners, including the Division of Marine Fisheries, DER, NOAA, the Jones River Watershed Association, and the Brockton Water Commission, construct a fish ladder on the Forge Pond Dam immediately upstream. DER's new Stream Continuity Specialist, Tim Chorey, will offer assistance to project partners as this culvert replacement project moves forward.



On March 15, 2010, flood waters completely submerged the Lake Street culvert.

> Return to top of document

Resources and Grants

Grant, Prize, Fellowship, Contest, Award, Fundraising, etc. Opportunities

(presented in rough chronological order by application/nomination/entry deadline)

The New England Chapter of the Society for Ecological Restoration (SER-NE) is offering two student grants, up to \$500 each, to support research and studies in the field of ecological restoration. The Laderman Student Grant is dedicated in honor of Aimlee Laderman, ecologist, life-long educator, and founding member of SER-NE. The requested funding must be in support of research or scholarship related to ecological restoration within New England, and may be used for research or scholarship expenses such as travel, equipment, living expenses, or tuition. Grant recipients are required to complete their funded work and present the results at an SER-NE event by May 31, 2016. The application deadline is March 25, 2015; click here to apply or for more info, or contact Robin.MacEwan@stantec.com with any questions.

The Mass. Executive Office of Energy and Environmental Affairs (EEA) is now accepting applications for the <u>2015</u> <u>Secretary Awards for Excellence in Energy and Environmental Education</u>. All K-12 Massachusetts schools are eligible for cash awards for outstanding environmental and energy education projects. Winners will be notified in April, and invited to attend a formal award ceremony at the State House. The nomination deadline is March 27, 2015; click <u>here</u> for a nomination form, and <u>here</u> to read a press release about the award.

The Gulf of Maine Council on the Marine Environment is seeking nominations for its annual *Visionary*, *Longard, Susan Snow-Cotter Leadership, Industry*, and *Sustainable Communities Awards*. Visionary Awards will be presented to one individual and one organization in each state and province bordering the Gulf. The Longard Award will be presented to an outstanding volunteer within the Gulf watershed. The Susan Snow-Cotter Award will recognize a coastal management professional who exemplifies outstanding leadership or exceptional mentoring in the Gulf of Maine watershed. The Industry Award will go to a business that has shown leadership in efforts to improve the well-being of the Gulf of Maine ecosystem. The Sustainable Communities Award will go to a community of group within a community that exemplifies a sustainable environment and economy. The deadline to submit nomination forms is March 30, 2015; click here for more info.

The Narragansett Bay Estuary Program is inviting proposals for projects within the Greater Narragansett Bay Watershed (which includes the Massachusetts portions of the Blackstone, Taunton and Ten Mile River watersheds). The Narragansett Bay Estuary Grant Program is providing financial resources for projects that help meet the Estuary Program's goals to protect and preserve Narragansett Bay and its watershed. For 2015, the Narragansett Bay Estuary Grant Program, in coordination with the New England Interstate Water Pollution Control Commission, will distribute up to \$65,000 in grant funds and is designed for individual grants in the range of \$3,000 to \$10,000 for each project. As described more fully in the Request for Proposals, this grant program is designed to equally fund: 1) Watershed Protection Grants, where the objective is to protect high quality waters and habitats, and 2) Watershed Restoration Grants where the objective is to restore degraded waters and habitats. The deadline to submit proposals under this grants program is March 31, 2015; click here or contact Olivia Ahern, NEIWPCC Assistant Environmental Analyst, at (401) 633-0550 or olivia.ahern@nbep.org for more info.

Have you been awarded a grant in the last year? Have you created a proposal with a compelling narrative, a strong, workable plan ready to implement, and a succinct, complete, and engaging executive summary? Then you might want to enter *The 2015 Winning Grant Proposal Competition*, hosted by the Grant Professionals Association and GrantStation, with judges chosen from the ranks of professional grant writers. Enter your winning grant proposal by March 31, 2015 to be eligible for the Grand Prize or one of three Honorable Mentions. Winners will be announced in May, and the winning proposal will be published as an example of superior grantsmanship. Click here or contact Ellen Mowrer, GrantStation's Director of Business Analysis, for more info.

Administered by Wells Fargo Bank, the mission of the Watertown, MA-based <u>David</u>, <u>Helen and Marian</u> <u>Woodward Fund</u> is "to make this a better world for those who come after us." While, historically, preference has been given to organizations in Connecticut, and charities with religious affiliations, any §501(c)(3) tax-exempt organization in New England and New York is eligible to apply. Grant recipients are requested to submit a brief written progress report, six months after the date of the first funding check, describing what has been accomplished with the funds granted. The annual application **deadline** is **April 1**; click <u>here</u> for more info.

The Wildlife Conservation Society's North America Program recently announced its next round of grantmaking through the WCS's Climate Adaptation Fund. Awards will be made to non-profit conservation organizations for applied, on-the-ground projects focused on implementing priority conservation actions for climate adaptation at a landscape scale. Interested organizations should carefully review the information outlined in the Request for Proposals (RFP) and the Applicant Guidance Document for instructions. To apply, a 2015 Preproposal application form must be submitted to Darren Long at dlong@wcs.org no later than 5:00 PM MST on Friday, April 10, 2015. In the meantime, direct any questions to Kathryn Dunning at kdunning@wcs.org.

NOAA's Office of Education (OEd) recently issued a request for applications for projects designed to strengthen the public's and /or K-12 students' environmental literacy to improve community resilience to extreme weather events and environmental changes. Successful projects will advance NOAA's mission and build the environmental literacy necessary for community resilience by focusing on geographic awareness and an understanding of Earth systems and the threats and vulnerabilities that are associated with a community's location. Eligible applicants are limited to institutions of higher education; other nonprofits, including informal education institutions such as museums, zoos, and aquariums; K-12 public and independent schools and school systems; and state, local and Indian tribal governments in the U.S.. Proposed projects should be between two and five years in duration and have total budget requests of \$250,000 to \$500,000 for all years of the project. The deadline for applications to this funding opportunity is April 13, 2015; click here, or go to www.grants.gov and search for "NOAA-SEC-OED-2015-2004408" to apply or for more info.

The <u>Sparkplug Foundation</u> primarily supports nonprofit organizations that are proposing start-up projects in the fields of music, education, and <u>grassroots organizing</u>. In the Music category, the Foundation supports emerging professional musicians or music-development programs. In Education and Teaching, the Foundation funds projects that deal with "the whole student" and with learning as a community activity. Through Grassroots Organizing, the Foundation encourages activist strategies for addressing institutional injustices and for building a reasoned, just society. Online questionnaires must be completed by **April 1, 2015**. Letters of intent are due **April 15**, and the deadline for final applications is **May 15, 2015**. Click <u>here</u> to review funding guidelines and application instructions.

Each year, the Environmental Business Council of New England (EBC) recognizes companies, organizations and individuals for outstanding environmental / energy accomplishments in the promotion of a sustainable, clean environment through the EBEE Awards. The EBEE Awards are presented at the EBC's Annual Award Celebration, held annually in June. These awards were established by the EBC to encourage companies, government agencies, non-profit organizations, and environmental professionals to serve as models for others to emulate and, in doing so, further the mission and objectives of the EBC. The nomination deadline is April 10, 2015; click here for more info on the award categories (which include Non-profit Leadership and Government Service) and the nomination process.

The Mass. Department of Environmental Protection (MassDEP) recently issued a Request for Responses (RFR) for a new grant program to assist local communities with planning for their water infrastructure. This program, which resulted from new water legislation passed in 2014, will provide grants of up to \$30,000 to subsidize Comprehensive Wastewater Management Plans, Integrated Asset Management Plans and Green Infrastructure Plans. The deadline to respond to the RFR is April 14, 2015. Further details on this program, including how to apply for funding, can be found here or here (i.e., Bid # BD-15-1045-BRP00-BRP01-00000003143 on the www.commbuys.com website). You can also contact Patrick Rogers at MassDEP [(617) 292-5658 or patrick.rogers@state.ma.us] for more info.

The annual <u>American Conservation Film Festival</u> (ACFF) "presents thought-provoking films that explore the connection between people and the environment. Chosen films illuminate:

- Human interactions with wildlife and wild places.
- Issues driven by natural resource conservation.
- Humans as part of the environment and/or living in a continuum of cultural tradition.
- Conservation of cultures, communities, and or lifestyles in conjunction with changes in the natural world.
- How youth encounter and understand the natural world."

Submissions are invited for the <u>2015 American Conservation Film Festival</u>, which will run from October 22-25, 2015, in Shepherdstown, WV. Films to be screened at ACFF are selected by a committee of media and conservation professionals who consider the quality of storytelling, production value, aesthetics, and relevance to conservation. The final submission **deadline** is **April 15, 2015**: click here for more info.

The National Mayor's Challenge for Water Conservation (aka My Water Pledge), taking place each year during Earth Month (i.e., April 1-30), is a friendly competition between cities across the US to see who can be the most "water-wise." Mayors nationwide challenge their residents to conserve water, energy and other natural resources on behalf of their city through a series of informative, easy-to-use pledges online. My Water Challenge participants in cities with the highest percentage of residents who take the challenge win a share of over \$1 million in water saving and other prizes. Residents from 3,600 cities took part in last year's challenge. While My Water Challenge doesn't launch until April 1, you can preview this year's campaign beforehand and be entered to win a piece of art picked out by marine life artist and conservationist Robert Wyland. Click here and here for more info.

The <u>Captain Planet Foundation</u> is accepting applications from schools and nonprofit organizations for its <u>Ecotech Grant program</u>, a new initiative to support projects that motivate children through the STEM (science, technology, engineering, and math) fields while challenging them to reimagine the way their world can be. <u>Sixteen grants of \$2,500</u> each will be awarded to schools and nonprofit organizations in support of projects that use innovation, nature-based design, or technology to address local environmental problems. Ideal projects will integrate environmental education with opportunities for children to solve real-world problems by using science practices and technology to help care for the environment. Preference will be given to applicants who have secured \$2,500 in matching funds or in-kind contributions. In addition, priority will be given to student-directed projects that provide materials that make the project easy to replicate, including lesson plans, protocols, videos, adaptations, and examples of student work. Applications for the current grant round will be accepted on a rolling basis until **April 30, 2015**; click here for more info.

The *Boston Globe's* GRANT (Globe Readers And Non-profits Together) Program enables subscribers to the print or online versions of the *Globe* or Boston.com to show their support for non-profits by choosing which ones are given free advertising space in the *Globe*. Seven-day newspaper subscribers' vouchers are valued at \$100; all other subscribers (including website-only readers) receive vouchers valued at \$50. Readers decide which charity deserves his or her voucher the most, and the organizations with the highest donations will be able to spread the word about their valuable work through free advertising in the *Globe*. Participants in the GRANT program include the Appalachian Mountain Club (AMC), The Trustees of Reservations (TTOR) and Mass. Audubon. The deadline to vote for your favorite nonprofit is April 30, 2015; click here for more info and here to see last year's "leader board".

The Google Ad Grants program supports nonprofit organizations in the U.S. and overseas that "help to make the world a better place". Google Ad Grants harnesses the power of the company's flagship advertising product, Google AdWords. Through the program, selected organizations receive \$10,000 per month in in-kind AdWords advertising to promote their missions and initiatives on Google.com. The program has awarded AdWords advertising to a wide range of nonprofit organizations whose missions have included such causes as animal welfare and safeguarding wildlife habitat. Online applications may be submitted at any time; click here for more info, and additional helpful info is here, here and here.

The <u>Healthy Communities Grant Program</u>, administered by <u>EPA Region One/New England</u>, is a competitive program that provides funding to communities to reduce environmental risks to protect and improve human health and the quality of life. The Program seeks to do this by identifying and funding projects that:

- Target resources to benefit communities at risk;
- Assess, understand, and reduce environmental and human health risks;
- Increase collaboration through community-based projects;
- Build institutional and community capacity to understand and solve environmental and human health problems;
- Achieve measurable environmental and human health benefits; and
- Advance emergency preparedness and resilience.

The <u>Healthy Communities web page</u> currently contains lots of info on grants, and the grant application process, for 2014 and earlier years. While the info for the 2015 grant round is yet to be posted, it should happen by the **end of March**. Click <u>here</u> or contact Sandra Brownell [<u>brownell.sandra@epa.gov</u> or (617) 918-1797] for more info.

American Honda Motor Company established the American Honda Foundation to commemorate its twenty-fifth anniversary in the United States as well as to show its appreciation of America's support over that time. Since 1984, more than \$27 million have been awarded to organizations serving approximately 115 million people in virtually every state in the country. The foundation is accepting applications from nonprofit organizations and schools for programs or projects that support the teaching of science, technology, engineering, and mathematics. Application for environmental projects, job training, and literacy programs will also be considered. Grants of up to \$75,000 will be awarded to qualified nonprofit organizations that are tax exempt under section 501(c)(3) of the Internal Revenue Code, or a public school district, private/public elementary, or secondary school. The next application deadline is May 1, 2015. See the American Honda Foundation Web site for complete eligibility and application guidelines as well as descriptions of funded projects from previous years.

The Mass. Department of Conservation and Recreation (DCR)'s <u>Urban and Community Forestry Program</u>'s <u>Urban and Community Forestry Challenge Grants</u> are 50-50 matching grants (typically ranging in size from \$1,000 - 30,000) offered to municipalities and non-profit groups in Massachusetts communities of all sizes for the purpose of building local capacity for excellent urban and community forestry at the local and regional level. For the purpose of these grants, Urban and Community Forestry refers to professional management (planting, protection and maintenance) of a municipality's public tree resources in partnership with residents and community institutions. On a broader scale, Urban and Community Forestry involves the community in the management of all a municipality's or region's "green infrastructure" in order to maximize social, economic and environmental quality. While the annual deadlines for full proposals are May 1 and November 1, applicants must submit an "Intent to Apply" form at least a month in advance of that deadline. Click here for more info on this grant program, as well as two related grant programs applying to National Grid-serviced or Environmental Justice (EJ) communities. You can also contact Mollie Freilicher [(413) 577-2966 or mollie.freilicher@state.ma.us] for more info.

The Massachusetts Service Alliance (MSA) is currently seeking nominations for the 2015 Massachusetts Service and Volunteerism Awards. The MSA invites you to nominate an outstanding Individual (for two categories: Getting Things Done, and Lifetime Achievement); or nominate a nonprofit organization or business for the Higher Ed/Community Service Partnership, Service-Learning Partnership, Corporate Partnership, or Nonprofit Volunteer Program Award. MSA will pay tribute to the winners during a special Awards Luncheon Ceremony at the 2015 Massachusetts Conference on Service and Volunteering on Monday, June 1st at the Sheraton Framingham Hotel. The deadline for nominations is Friday, May 1, 2015; click here to view the awards categories and here to complete the nomination form. Completed nomination forms should be emailed to Lindsay Rooney at Irooney@mass-service.org or mailed to the MSA, Attn: Awards, 100 North Washington Street, 3rd Floor Boston, MA 02114.

The Fund for Wild Nature provides grants to nonprofit organizations in the U.S. and Canada for campaigns to save native species and wild ecosystems, with particular emphasis on actions to defend threatened wilderness and biological diversity. Priority is given to ecological issues that are not receiving adequate public attention or funding. Grants, ranging from \$1,000 to \$3,000, are provided for advocacy, litigation, public policy work, development of citizen science, and similar endeavors. The Fund does not support proposals from organizations with budgets of over \$250,000 annually. The application deadlines are May 1 and October 1 of each year. Click here to apply or for more info.

The <u>Sounds Conservancy Grants Program</u> is dedicated to supporting the conservation and restoration of the sounds of Long Island, Fishers Island, Block Island, Rhode Island, **Martha's Vineyard**, and **Nantucket** and **their adjacent coastlines** in Connecticut, **Massachusetts**, New York, and Rhode Island. The program encourages and supports projects that lead to improved marine and coastal resource management with funding up to \$2,500 available to university, college, and high school students, private individuals, and nonprofit organizations. Applications must be postmarked by **May 1**; click <u>here</u> to apply or for more info, or write to <u>sounds@qlf.org</u>.

The **David Greenewalt Charitable Trust** (no web page) makes grants (generally in the \$2-5,000 range) for cultural, educational, historic preservation, environmental and other purposes, in Massachusetts and elsewhere. Groups seeking funding should do so in writing, using the <u>AGM common proposal form</u>. Submit three copies of the form and attachments, which should include: information on the nature of your organization's charitable service; your organization's IRS letter documenting 501(c)(3) tax-exempt status; your organization's financial reports for the last two years; and a budget for the project for which you are seeking funding. Send it to: Ms. Winifred I. Li, Trustee, David Greenewalt Charitable Trust, c/o Ropes and Gray LLP, 800 Boylston St., Boston, MA 02199-3600. Telephone: (617) 951-7938. The typical annual application deadlines are **May 30** and September 30.

The **LeBaron Foundation** (no web page) makes grants (in the \$5,000-\$10,000 range, occasionally smaller or larger) to a variety of educational, cultural, medical and other 501(c)(3) charitable organizations and institutions, primarily in the northeast U.S. Groups seeking funding should do so in writing, supplying relevant information concerning the applicant, its exempt status, and the purpose for which funds are sought, before the annual application **deadline** of **June 1**. Send it to: Stacy LeBaron, Trustee, The LeBaron Foundation, 922 Fuller Hill Rd., Warren VT 05674, or electronically via <u>lebaronfoundation@gmail.com</u>. Telephone: (802) 496-7730.

The Section 319 Nonpoint Source Competitive Grants Program, administered by the MassDEP's Bureau of Water Resources, provides funding for implementation projects that address the prevention, control, and abatement of nonpoint source (NPS) pollution. §319 funds are directed at the remediation of impaired waters and protection of healthy watersheds. In general, eligible projects must: implement measures that address the prevention, control, and abatement of NPS pollution; target the major source(s) of nonpoint source pollution within a watershed/subwatershed; contain an appropriate method for evaluating the project results; and must address activities that are identified in the Massachusetts NPS Management Plan. Proposals may be submitted by any interested Massachusetts public or private organization. To be eligible to receive funding, a 40% non-federal match is required from the grantee. The Request for Responses (RFR) for the FFY16 grant round is expected to be posted at www.commbuys.com on or about April 1, 2015, with responses expected to be due around June 2, 2015. Click here for general info on the grants and here to download specific info for the FFY16 grant round.

The Monarch Butterfly Fund makes grants for conservation, research, public education and outreach, and local livelihoods in a strategy to protect monarch butterflies in North America and Mexico. Grants can be used for forest conservation; monarch habitat assessment and species monitoring; scientific research on aspects of monarch conservation; public awareness and outreach regarding monarch conservation; and support for local livelihoods in Mexican communities adjacent to the monarch habitat. While most grants are awarded to Mexican organizations and individuals, the Fund also supports a small number of projects in the USA and Canada. The annual application deadlines are January 5 and July 5; click here for more info. [See the related Make Way for Monarchs web page.]

The <u>Fledgling Fund</u> makes grants (typically in the \$5,000 to \$30,000 range) to support the positive impact of **documentary films** seeking to sustain social change in a number of areas, including <u>environmental protection</u> and activism. Most of the funding supports the development and execution of outreach and audience engagement campaigns for social issue documentary films. The Fledgling Fund supports filmmakers in their efforts to raise awareness, provide tools for engagement and to **connect with organizations that can use film to advance their own work**. The grant application cycle for 2015 begins on **June 9, 2015**, and the **deadline** for submitting an initial Letter of Inquiry is **July 9, 2015**. Click <u>here</u> to learn more about the application process and <u>here</u> to read the Fund's FAO page.

In conjunction with the centennial anniversary of the National Park Service, the <u>Imagine Your Parks</u> grant program, a collaboration between the National Park Service (NPS) and the National Endowment for the Arts (NEA), will support art projects (including performance art) that encourage the creation of and greater public engagement with art about the <u>National Park System</u>. While there are twenty <u>national park areas in MA</u> that are potentially eligible for this initiative (including federally-designated Wild and Scenic Rivers), Imagine Your Parks-supported projects may take place anywhere at, around or about the National Park System, or may take place

elsewhere in the United States with a focus on the work and mission of the National Park Service. Anyone interested in applying should watch the <u>archived webinar</u> on the grant program that aired on 1/22/15. The next and final application **deadline** is **July 23, 2015**. Click <u>here</u> or contact <u>Charles Tracy</u> for more info.

The Portland, OR-based outdoor retailer KEEN Footwear is accepting nominations for its KEEN Effect Grant Program, an annual program designed to support organizations that are getting people outside to responsibly enjoy the outdoors. For 2015, the program will award ten grants of \$10,000 to organizations that inspire responsible outdoor participation as a way to build strong communities, promote creative and sustainable thinking, and introduce new audiences to the outdoors. While applications are accepted year-round, those submitted between March 1 and August 1, 2015 will be considered for a round of winners to be announced on National Public Lands Day, September 26, 2015. Click here for complete program guidelines, an FAQ, and nomination instructions.

The outdoor clothing retailer Patagonia's World Trout Initiative funds "groups and efforts working to restore and protect wild, self-sustainable trout, salmon, and other fish species within their native range. This includes both indigenous fresh and salt water fish. We believe that the best way to accomplish this over the long-term is by ensuring that populations have high quality habitat and adequate stream flows, can migrate between habitats without human intervention, are not negatively impacted by hatchery and aquaculture operations, have protection from harmful non-native species and disease, and are not over-harvested. We look for innovative groups that produce measurable results and work on long term solutions to root causes of the problem. Your efforts should be quantifiable, with specific goals, objectives, and action plans, and should include measures for evaluating success. Because we are a privately held company, we have the freedom to fund groups off the beaten path that base solutions on sound science. Most grants are in the range of \$3,000 to \$15,000." Click here to begin the online application process, here for more info, or write to Bill Klyn at bill klyn@patagonia.com.

The objective of the <u>Trout and Salmon Foundation</u> is "to aid in the restoration or improvement of any trout stream, salmon fishery, and/or ambient stream conditions, through research, education, publication, and physical stream restoration which will result in improved fish reproduction, fish growth and survival, or expansion of the trout/salmon fisheries by way of offering financial assistance for specific projects". The Foundation provides matching grants (ranging from \$250 to a maximum of \$5,000) for **stream restoration projects that benefit trout and salmon and their habitat**. The Foundation is actively soliciting grants at all times, with a due date to the Foundation by **August 1st** of each year. The Foundation's Annual Meeting (at which funding decisions are made) is usually held in mid-September of each year. Click <u>here</u> to download the grant guidelines, and if you think your project is a good fit, that same document provides details on how to apply.

The Lincoln, MA-based **Clark Charitable Trust** (no web page) makes grants (generally in the \$3-10,000 range) to support arts, culture, education, animal welfare, environmental and other projects and organizations, in Massachusetts and elsewhere. Prospective grant seekers should send requests in the form of a letter, describing the charitable purpose for which the funds are sought. Send it to: Clark Charitable Trust, ATTN: Timothy, P.O. Box 681, Lincoln, MA 01773-0681. Telephone: (781) 259-8800. There are no specified application forms or deadlines.

The **Henry T. Wiggin Charitable Trust** (no web page) makes grants (generally around \$2,000) for medical, animal welfare, conservation and other purposes, primarily in Massachusetts. Groups requesting funding should do so in writing, providing a general description of the project and a statement of need for the funding requested. Send it to: James L. Smithson, Esq., Henry T. Wiggin Charitable Trust, c/o Tyler & Reynolds, P.C., 77 Summer St., Boston, MA 02110. Telephone: (617) 695-9799. There are no specified application forms or deadlines.

The Brooklyn, CT-based **Beagary Charitable Trust** (no web page) primarily supports nonprofit organizations in Windham County, CT, and **Martha's Vineyard** and **Worcester County, MA**. The Trust's areas of interest include arts and culture, children and youth, education, including private education and **wildlife preservation**. The types of support include general operating and project support, and grant size averages \$5,000. Interested applicants should submit a written request that includes a description of the organization, the purpose for which funds are being requested, and the amount of the request. Applicants should also include a copy of the IRS letter confirming tax-

exempt status. Send it to: Ms. Patricia A. Morgan, Trustee, Beagary Charitable Trust, 49 Westview Drive, Brooklyn, CT 06234. Telephone: Phone: (860) 779-0429. There are no specified deadlines.

The West Virginia-based **One Foundation** (no web page) makes grants (generally in the \$1,000-10,000 range, occasionally larger) to a number of cultural, educational and environmental organizations. Requests for funding cam be made in person or via mail and should include a description of the project for which funding is sought, its charitable purposes, and documentation of the charitable status of the requesting organization. Submit to: Tom R. Attar, One Foundation, 125 Whitestick Road, Beckley, WV 25801. Telephone: (304) 256-6427. There are no specified application forms or deadlines.

Directed by Steven Chapman, the San Francisco-based **Foundation for Ecology and Culture** (no web page) was founded in 1998 to promote ecological literacy and culturally creative approaches towards a more sustainable future. The Foundation's current areas of activity include: **place-based learning, community-based restoration projects**, and **wilderness education initiatives**. Groups seeking funding for a project (for grants in the \$1,000-\$5,000 range) should provide a detailed letter describing the scope of the project, a profile of the individuals involved and a time frame for completion, as well as a brief description of the organization seeking funding along with "some evidence of institutional longevity". Send it to: The Foundation for Ecology and Culture, P.O. Box 170219, San Francisco, CA 94117. Telephone: (415) 701-1324.

The Cleveland-based William Bingham Foundation makes grants (typically in the \$25,000-\$50,000 range) "that further the philanthropic intent of its founder, Elizabeth Bingham Blossom: support organizations in the fields of education, science, health and human services, and the arts; works for a world that is environmentally self-sustaining; seeks to strengthen civil society and its institutions; educate family members and others in the values and practices of philanthropy, community service, and stewardship; and to seek to build a sense of community among ourselves and with the world we share". While the Foundation's web page indicates that it accepts funding proposals by invitation only, you could nevertheless make a polite inquiry to the Foundation to see if they might consider a proposal from your organization. You could make that inquiry to: Laura Gilbertson, The William Bingham Foundation, 1111 Superior Avenue, Suite 700, Cleveland, OH 44114; lg@wbinghanmfoundation.org, (216) 344-5200.

The Conservation Fund's mission is "to save land for future generations. From day one, we have also sought to balance environmental and economic goals for a win-win. That's reflected in the types of land we save, the collaborations we build, and our willingness to take strategic risks. We have consistently shown that effective land conservation makes good economic sense. In addition to saving land directly, we act swiftly to accelerate and sustain conservation. Our team helps communities strategically plan for development, provides loans to small green businesses, and works with companies to compensate for environmental impacts, among other efforts. With our skills and financial resources, we make land conservation a viable choice. We want to be sure your favorite places stay that way." Services provided by The Conservation Fund include its Land Conservation Loan Program, which provides flexible financing and capacity to swiftly purchase high-priority lands that come up for sale. Click here for more info and here to view a video about that program.

Last but not least – a worthy cause <u>you</u> can donate to: "save something on your taxes" this year by <u>donating to the Natural Heritage & Endangered Species Fund</u>. More than 425 plants and animals are recognized as rare in MA. Please consider contributing to their protection via your MA income tax filing. Look for line 32a. "Endangered Wildlife Conservation" on your state income tax form. All donations go into the Natural Heritage & Endangered Species Fund, a critical source for the annual budget of <u>MassWildlife's Natural Heritage and Endangered Species Program</u>. About 20,000 tax-filers support the Program each year. Contributions can also be made directly, at any time, by sending a check payable to the "Commonwealth of MA: NHESP" to: Natural Heritage & Endangered Species Program, MA Division of Fisheries & Wildlife, 1 Rabbit Hill Road, Westboro, MA 01581. Click <u>here</u> or <u>here</u> for more info.

Calendar

(sorted chronologically by date of event, submission deadline, etc. Descriptive text for events provided below is obtained from the events' web pages.)

An EPA Watershed Academy Webcast will take place from Wednesday March 18, 2015 from 1:00 PM – 3:00 PM on a recently released document: Watershed Approach Handbook: Improving Benefits Associated with Wetland and Stream Restoration and Protection Projects. Prepared by staff from the Environmental Law Institute (ELI) and The Nature Conservancy (TNC) with funding provided by the EPA, the Handbook was developed to advance the use of a "watershed approach" in the selection, design, and siting of wetland and stream restoration and protection projects, including projects required by compensatory mitigation. The Handbook provides a framework for how to carry out the watershed approach, defines a range of different approaches, and offers examples of how these approaches have been applied across the country. The webcast will also feature a case study from Wisconsin. Click here to register and here for more info on the webcast, and here to download the Handbook.

A talk entitled <u>The Mystery of Eels</u> is scheduled to take place on Wednesday, March 18, 2015, beginning at 7:00 PM, at the <u>South Shore Natural Science Center</u> in Norwell. The speaker is James Prosek, Artist, Author and Activist, Yale University. "Eels have been a source of fascination to award winning writer, artist and conservationist James Prosek since childhood. His quest to find out more about these mysterious creatures that live in our rivers and return to the Sargasso Sea off Bermuda to mate took him from Maine, where New England fishermen reap the benefits of a multibillion-dollar eel business; to Japan, where more than 130,000 tons of eel is consumed each year. His acclaimed book, artwork and journey became the subject of a PBS Nature show in 2014 entitled <u>The Mystery of Eels</u>." Prosek's talk, part of the <u>Water Watch Lecture Series</u>, is free and open to the public – no pre-registration is necessary.

The <u>Central Mass. Lyme Foundation</u> will be hosting the first-ever <u>Central Mass. Lyme Conference</u> on **Saturday, March 21, 2015** at Quinsigamond Community College in Worcester. The event will explore the complexities of Lyme and other tick-borne diseases and include presentations by experts in primary care, research, testing, psychology and legislation. Click <u>here</u> to register or for more info, or contact Michele Miller at <u>CentralMassLyme@gmail.com</u>.

The <u>2015 Massachusetts Land Conservation Conference</u> will be taking place on <u>Saturday</u>, <u>March 21</u> from 8:00 AM – 4:00 PM at the <u>Worcester Technical High School</u>. Convened by the <u>Mass. Land Trust Coalition</u> (MLTC), this annual training and networking event provides land trust board members and staff, parks administrators and advocates, colleagues from federal, state and local government agencies, students, and philanthropists an opportunity to participate in a full day of workshops and discussions that focus on fostering healthy communities in MA through land conservation. Join your colleagues in land conservation and acquire the information, skills, and connections you need to be most effective. The MLTC is delighted to have <u>U.S. Congressman James P. McGovern</u> as keynote speaker; and the <u>new MA Secretary of Energy and Environmental Affairs, Matthew Beaton</u>, will, also speak. Click <u>here</u> to register or for more info on the 2015 Conference, and <u>here</u> for archived presentations and other info from the 2014 and other previous Mass. Land Conservation Conferences.

The <u>Citizen Planner Training Collaborative 2015 Conference</u> will also be taking place in Worcester on Saturday, March 21 (at the College of the Holy Cross' Hogan Campus Center). This annual conference is a valuable resource for Massachusetts planners, staff, Planning Board members and ZBA members. All sessions offer AICP, MIIA or CPTC credits. This year's session topics include Climate Change & Sustainable Communities (moderated by Mass Audubon), Gas Pipelines and Local Permitting, and Coordinating Permit Reviews, among many others. Click <u>here</u> to register and <u>here</u> for more info.

The <u>Blackstone River Coalition</u> (BRC)'s *Annual Water Quality Monitoring Summit* will be held on **Saturday,** March 21, 2015, from 9:15 AM – 12:00 Noon at the <u>Hopedale Community House</u> in Hopedale, MA. The BRC will present its Report Card for the 2014 season in which grades of excellent to poor are assigned to monitoring sites

throughout the Blackstone River watershed based on physical, chemical, and aesthetic data collected by our volunteer monitors last April through November. Our Keynote Speaker will be MassWildlife Fisheries Biologist Richard Hartley, who will discuss the status of fish in the watershed and the state's research currently underway. Anyone interested in the quality of the Blackstone River and its watershed should plan to attend. If you've ever thought of becoming a volunteer monitor, the Annual Summit is the place to begin! Contact Susan L. Thomas, Coordinator, Watershed-Wide Volunteer Water Quality Monitoring Program, at acadia94@verizon.net or (508) 471-0988 for more info. [See also the related Blackstone River Watershed Interactive Water Quality Map.]

<u>BeCause Water</u> is hosting a local celebration of <u>World Water Day</u> on **Sunday, March 22, 2015** from 2:00 PM – 5:00 PM in downtown Boston. The purpose of the <u>event</u>, taking place at 50 Milk St., 17th Floor, is "to enable connections across the leading networks of water-focused nonprofits, student groups, governmental agencies, and corporations in Greater Boston and ultimately walk away with solutions that support our local water system." The event includes a screening of the documentary movie *Divide in Concord*. Click <u>here</u> to sign up or for more info.

Best Management Practices (BMPs) help you identify effective and realistic practices that can be integrated into any behavior. A free webinar entitled *Invasive Plant Best Management Practices*, sponsored by the <u>Sustainable Forests Roundtable</u> (SFR), is scheduled for Tuesday, March 24, 2015, beginning at 1:00 PM. Whether you're a gardener, a landowner, a forester to a logger, the movement of invasive species is always a concern. A BMP can be as simple as cleaning your shoes or as complex as pressure washing your bulldozer. Regardless of your practice, the goal is always to minimize the spread of invasive species. Learn how to create best management practices (BMPs) that help identify and minimize the spread of invasive species. Click <u>here</u> or <u>here</u> to sign up or for more info on this or other archived SFR webinars, many of which are on interesting topics, such as <u>Stream Channel Repair and Restoration Following Extreme Flooding Damage</u>, <u>Part 1 - Background and Planning</u>.

This was the storm of record prior to Superstorm Sandy in October 2012. Coastal plant materials were not readily available in the 1960s for revegetation purposes. Consequently, the <u>Cape May Plant Materials Center</u> was established by the USDA's Soil Conservation Service in 1965 to test, select, and release plants to the commercial marketplace for re-establishing vegetation on dunes, shorelines, streambanks and other highly disturbed sites. In the online training session <u>Coastal Area Restoration</u>, taking place on **Tuesday, March 24, 2015**, from 2:00-3:00 PM, participants will learn more about the selection of coastal-adapted plant species, innovative uses of these plants, and opportunities for growing alternative specialty crops on marginal lands in coastal areas. Click <u>here</u> for more info.

An American Water Resources Association (AWRA)-sponsored webinar, Clear Choices Clean Water - An Effective Outreach & Education Campaign to Reach the Masses, will take place on Wednesday, March 25 beginning at 1:00 PM. The speakers are Lyn Crighton, Executive Director, Tippecanoe Watershed Foundation, Indiana, and Jill Hoffmann, President, Empower Results, LLC. The Clear Choices Clean Water Initiative is a high-quality social marketing strategy designed to get average citizens to make everyday choices that benefit local lakes and streams. Join us for a strategic session on 'how to get people to care', 'how to get people to respond', 'how to measure your outreach success', and most importantly, 'how to partner with us to launch a Clear Choices program in your area to meet your outreach goals'. The webinar will share insights on how this diverse and effective campaign was created, how it works, and how it can create invaluable metrics for your reporting while engaging the public across many creative and unique outreach mechanisms. Presentation followed by Q&A. Click here to register or for more info on this and other AWRA-sponsored webinars.

How will plants respond to the predicted changes in temperature and precipitation from a warming climate? This and related questions will be addressed at <u>Climate Change and the Future of Plant Life</u>, a daylong symposium taking place in Cambridge, MA on Thursday, March 26, 2015 and hosted by the <u>New England Wild Flower Society</u>. Five noted botanists and ecologists will present the state of New England's plants; the historical patterns and current evidence of climate-induced adaptation, migration, and loss; and strategies for conserving and

managing plant species and natural communities in the face of climate change. Click <u>here</u> to register or for more info, or contact <u>Jessica Pederson</u>, Director of Public Programs, (508) 877-7630 ext. 3302.

As the world becomes increasingly urban and populations rise, living in denser cities may be the solution to humanity's resource challenges. Can urban areas be environmentally sound? Where do the cities of the future exist today? How can Boston become a leader in green design? Learn the answers to these and other questions at *The Future of the City: Can Green Cities Save the Planet*?, hosted by The Nature Conservancy/Massachusetts and taking place on Monday, March 30, 2015 at the Calderwood Pavilion, Wimberley Theatre in Boston. Reception begins at 5:30 PM, and the talk takes place at 6:30 PM. Join leading thinkers from Boston and beyond for a discussion about solutions to some of the most pressing environmental challenges we face. Click here to sign up or for more info.

The <u>Maine Sustainability & Water Conference 2015</u> will be taking place on Tuesday, March 31, 2015 at the Maine Civic Center in Augusta, ME. The conference includes sessions on <u>stream connectivity</u>, <u>streamflow quality and quantity</u>, and a "Sustaining Maine's Water Resources" session, which includes the presentations <u>Sustaining</u> <u>Ecosystem Services to Promote Human Well Being – Interdisciplinary Research to Assess the Value of Riparian Buffers and Riparian buffers in Southern Maine streams: do they matter ecologically?</u>. Click <u>here</u> to register or for more info.

<u>Christine Odiaga</u>, the <u>Wetlands Circuit Rider</u> for <u>MassDEP's Southeast Region</u>, will be offering a series of **public** workshops on various aspects of stormwater, wetland, Riverfront Area and regulatory procedures in April and May (click <u>here</u> for more info). **Pre-registration** for each workshop is required by writing to Christine at <u>Christine.Odiaga@state.ma.us</u>. As space in these sessions is limited, people from the <u>DEP Southeast region</u> <u>communities</u> will have priority.

Had enough of snow-focused activities, like skiing (and shoveling)? Then you might want to be a spectator at or participant in the *Ware River "Ice Breaker" Canoe and Kayak Race*, scheduled to take place in Barre on Saturday, April 4. The event is sponsored by the New England Canoe and Kayak Racing Association (NECKRA). Click here or call Bill McDonald at (978) 248-8084 for more info.

A <u>Mystic River Watershed Initiative Science Forum</u> will be taking place on **Thursday, April 9, 2015**, from 8:30 A <u>Mystic River Watershed Initiative Science Forum</u> will be taking place on **Thursday, April 9, 2015**, from 8:30 AM – 1:00 PM, at the offices of the U.S. EPA Region One/New England, 5 Post Office Square in downtown Boston. The Forum will take place in Court Room 6, on the 15th floor. It is highly recommended that people attending the Forum arrive early to leave time for going through the security checkpoint. If you plan to attend, please **RSVP** by emailing <u>glivinski.elizabeth@epa.gov</u>. Click <u>here</u> for more info.

The 52nd Annual <u>Athol Lions Club River Rat Race</u>, on the Millers River from Athol to Orange, is scheduled to take place on **Saturday, April 11**. The event also includes a 5K "Big Cheese" Road Race and a parade. Click <u>here</u>, <u>here</u>, or call (978) 249-9038 for more info on this NECKRA series race.

Sponsored by the Westfield River Watershed Association (WRWA), the 2015 Westfield River Symposium will be held on Saturday, April 11, 2015 in the Scanlon Banquet Hall on the campus of Westfield State University. This year's theme is "Outdoor Fun in Your Watershed", with a variety of speakers and exhibitors in the morning and a couple of field trips in the afternoon (weather permitting). The keynote address will be given by Joe Giffune, President of the Friends of the Columbia Greenway Rail Trail, who will talk about the history and future of that new addition to local recreational opportunities. The tentative full program is available here. The New England Grassroots Environment Fund recently launched registration for its RootSkills Networking & Training Retreat, taking place on Friday, April 10 and Saturday, April 11, 2015 in New Bedford. "RootSkills brings together 100-125 community volunteer leaders from across New England who are working on projects that make their towns and neighborhoods more healthy, just, safe, and environmentally sustainable. The event creates space for networking, good-food-eating, relaxing, interesting-conversations-having and community organizing (process) skills-building. The Grassroots Fund, and several partner organizations, managed to pull together four

day-long workshop tracks, focusing on process skills with facilitators that really understand the specific challenges of community-based efforts. On <u>Friday evening</u> we will have a great dinner, followed by an evening program where guest speakers will discuss regional strategies and trends in each <u>issue area</u> with the goal of illustrating how all <u>issue areas</u> are interconnected". Click <u>here</u> to sign up or for more info, or call the Grassroots Fund at (603) 905-9915.

<u>Vernal Pools for Conservation Professionals</u>, a professional development workshop is designed for conservation commissioners, agency personnel, and consultants who are looking to develop an in-depth understanding of vernal pool ecology and the Massachusetts regulatory measures designed to protect the wildlife habitat value of vernal pools. This free, full-day workshop, co-sponsored by the New England Wild Flower Society (NEWFS), the Walden Woods Project, the Vernal Pool Association, and the Mass. Association of Conservation Commissions (MACC), will take place on **Tuesday, April 14, 2015** from 9:00 AM – 3:00 PM. The workshop, to be held at Garden in the Woods in Framingham, will include a visit to an onsite vernal pool. Click <u>here</u> to sign up or for more info.

The Massachusetts Bays National Estuary Program (MassBays) is hosting a 2015 State of the Bays Symposium on Wednesday, April 15, 2015 from 8:30AM-3:00 PM in Boston. The event will bring together current and potential partners of MassBays who are eager to connect with their counterpart across the region, including researchers; citizen volunteers; state, local, and federal agency representatives and officials; and environmental nonprofits. Four expert panels will describe conditions and trends in human uses, weather, water quality, habitat, and wildlife in the bays, and participants will be encouraged through graphic facilitation to explore the potential for connections among research and monitoring programs to inform future monitoring and assessment efforts. Click here to register and here for more info.

How can your nonprofit build lucrative and lasting fundraising ties with companies? Find out at the upcoming webinar *Corporate Grants and Partnerships: How to Form Lasting Ties*, hosted by *The Chronicle of Philanthropy*, and scheduled to take place on **Thursday, April 16th** from 2:00 PM – 3:00 PM. The webinar will give you "a firsthand look at how innovative nonprofits successfully attract steady streams of corporate support. We'll explore the factors that drive companies giving decisions and offer strategies to help your organization build similar corporate relationships. You will learn: how to present your nonprofit as a valuable partner to corporate decision makers by demonstrating your impact and offering benefits to their business; how to build relationships within a company and find an internal advocate; and how to better assess potential partnerships to ensure a good fit for your organization's mission, strengths, and size. Click here to sign up for the webinar or for more info.

The "oldest in the U.S." (62nd Annual) <u>Westfield River Whitewater Races</u> are scheduled to take place on **Saturday, April 18** in Huntington, MA. The NECKRA series race is run by the Westfield River Canoe Club. There is a Novice Race in the morning and an Expert Race in the afternoon. The awards ceremony takes place at Strathmore Park in Russell, MA. Click <u>here</u>, call (413) 636-2397 or write to <u>paddling4fun@gmail.com</u> for more info.

Sponsored by the Steuben, ME-based <u>Eagle Hill Institute</u>, the <u>15th Northeast Natural History Conference</u> (NENHC) is taking place from **April 18-20, 2015** at the <u>Sheraton Springfield</u> (Mass.). The event "promises to be the largest regional forum for researchers, natural resource managers, students, and naturalists to present current information on the varied aspects of applied field biology (freshwater, marine, and terrestrial) and natural history for the Northeastern United States and adjacent Canada. It will serve as a premier venue to identify research and management needs, foster friendships and collegial relationships, and encourage a greater region-wide interest in natural history by bringing people with diverse backgrounds together". Click <u>here</u> to register and for more info.

The <u>71st Annual Northeast Fish and Wildlife Conference</u> (aka the "NEAFWA" Conference) will be held from Sunday, April 19 - Tuesday, April 21, 2015 at the Newport Marriott in Newport, RI. The abstracts for <u>posters</u> and presentation topics, now posted online, include: What happens after large scale river restoration? Monitoring the Penobscot River Restoration Project; Likes and Dislikes: The experience of using Facebook to engage the outdoor community; Preliminary evaluation of unmanned-aerial vehicles to inventory early-successional habitats; Natural Dams in Free-Flowing Rivers; The North Atlantic Aquatic Connectivity Collaborative: Unifying Stream Crossing Assessment Protocols; Diadromous Fish Passage with a Nature-like Fishway; and Building statewide capacity for improving road-stream crossings in Massachusetts, presented by Kristen Ferry and Timothy Chorey of DER. Click here to register and here for more info.

"Water, critical to all of us, requires prudent management, realistic planning and effective regulation for protection of waterways, recreational areas, aquatic wildlife and drinking water. Southeastern Massachusetts' water resources are threatened by increasing population and development pressures. It is imperative that we work now to plan for a future with clean and plentiful water, restored rivers with abundant wildlife, and safe and efficient ways to treat wastewater and stormwater." Registration is now open for The Future of Water in Southeastern

Massachusetts, a one-day conference organized by the Watershed Action Alliance of Southeastern Massachusetts. It will be held on Friday, April 24, 2015 from 8:00 AM - 5:00 PM at Plimoth Plantation. The conference will provide info and networking opportunities relevant to professionals and volunteers working or interested in water conservation, sustainable water management and river restoration. Sessions will cover four big issues relating to water conservation: stormwater, drinking water, recreational water and wastewater, as well as three crucial topics in nonprofit endeavors: fundraising, outreach, and science and data collection (click here for more info on session topics and panelists). Click here to register and here for more info, or contact Dorie Stolley at dorie.stolley@ihu.edu.

The <u>26th Annual Nonpoint Source Conference</u>, put on by the <u>New England Interstate Water Pollution Control Commission</u> (NEIWPCC), will be held on **April 28-29**, **2015** at the Harraseeket Inn in Freeport, ME. <u>Registration</u> is now open for attendees and exhibitors, and a <u>draft event program</u> is available. Click <u>here</u> or contact Monica at <u>mkacprzyk@neiwpcc.org</u> for more info.

FLOW 2015: Protecting Rivers and Lakes in the Face of Uncertainty is the title of the Third International Workshop on Instream Flows, scheduled to take place in Portland, OR from April 28-30, 2015. The workshop is sponsored by the Instream Flow Council (IFC), which seeks to support the use of appropriate tools to protect, maintain, and restore, aquatic resources. Workshop sessions will focus on approaches and strategies that have effectively resolved uncertainty for: 1) federal regulatory needs; 2) state and provincial fish and wildlife agencies; and 3) non-governmental organizations, industries, and municipalities. Special emphasis will be placed on opportunities for integrating new and traditional instream flow methods. Click here for more info.

<u>River Rally 2015</u> will take place from **May 1-4, 2015** in Santa Ana Pueblo, NM. River Rally 2015 will focus on the following five themes:

- Tribal opportunities and breakthroughs
- Water security and scarcity in a climate changed world
- Solutions and innovations to deliver clean water
- Novel collaborations to expand impact and get to scale
- Organizational development for river groups and watershed organizations

Additionally, River Network is working with the <u>River Management Society</u> to host a series of workshops relevant to river management issues for planners and field staff. Click <u>here</u> to download the River Rally 2015 brochure and <u>here</u> to register.

The <u>Coastal and Estuarine Research Foundation</u> (CERF) is seeking abstracts and posters for <u>Grand Challenges in</u> <u>Coastal and Estuarine Science: Securing our Future</u> (aka <u>CERF 2015</u>, the 23rd Biennial Conference), taking place from November 8-12, 2015 in Portland, OR. The Federation is committed to bringing scientists and students

from around the world together to exchange information and ideas about the science and management of coastal ecosystems. CERF conferences provide outstanding opportunities for professionals at all stages in their career for continuing education and development. <u>Learn more and explore sessions</u> before <u>submitting your abstract</u> <u>online</u>. The abstract submittal **deadline** is **Friday, May 1, 2015**; click <u>here</u> for more info.

The Center for Watershed Protection will be hosting several webcasts in 2015. These include: *Green Infrastructure & Green Jobs* on May 20: "Many existing workforce development and employment programs are expanding to incorporate installation and maintenance of green infrastructure practices, particularly in cities that are ramping up deployment of such practices. While this is a natural fit, programs must be tailored carefully to include not only technical training, but other workforce skills and support. In some cases, green infrastructure trainees are acquiring certifications to enhance their chances for employment in the field. This webcast will features several programs around the country, and will highlight best practices for these types of programs, as well as critical lessons learned."; and *What to Do About Trashy Watersheds* on September 16: "The most publicly-visible pollutant in urban watersheds is trash and 'gross solids'. This can be a significant impairment, and one that is hard to control. Learn from places that have been managing trash as part of local or regional TMDLs and some of the approaches that have been tried. Of course, this webcast will feature a lot of trash-talking." Click here to sign up or for more info on these and the other webinars in the series.

Changing Climate, Changing Wetlands: Climate Impacts to Wetlands and the Role of Wetlands in Climate Change Adaptation and Carbon Mitigation is the title of the 2015 International Meeting of the Society of Wetland Scientists, taking place from Sat. May 30, 2015 to Thurs. June 4, 2015 in Providence, RI. This ground-breaking conference will examine the role that wetlands play in the global carbon cycle, how wetlands provide climate adaptation services, and how wetlands are being impacted by our changing climate. Although wetlands occupy only approximately 7% of the planets' land surface, they store approximately 30% of the world's soil carbon. They provide a variety of ecosystem services that protect communities from the impacts of climate change, and yet are particularly vulnerable to some of the climate changes that are occurring. Over the course of 5 days, leading researchers from around the world will present research findings that represent our most current understanding of how wetlands function in the context of climate change. A number of field trips, both coastal and inland will be offered. Click here to register or for more info.

The <u>University at Buffalo</u> (aka SUNY-Buffalo)'s <u>Ecosystem Restoration through Interdisciplinary Exchange</u>

<u>Program (ERIE)</u> will once again be offering a series of workshops in ecosystem restoration, taught by leading scientists and practitioners from Western New York and around the country. The workshops include
<u>Fundamentals of Stream Channel Design</u> (June 1 and 2, 2015) and <u>Watershed Management Planning</u>,

<u>Assessment</u>, & <u>Monitoring</u> (June 3, 4 and 5, 2015). Workshops are geared toward graduate students and working professionals. Participants can register for either or both courses; past participants have come from a wide variety of backgrounds and experiences. Click <u>here</u> to register or for more info.

Botanical societies and practicing scientists enliven and advance plant science. Academic biologists and citizenscientists generate important new discoveries about the flora. They also inspire a new generation of students who continue to expand scientific knowledge and work to conserve plants and ecosystems. In celebration of its 120th Anniversary, the New England Botanical Club (NEBC) is hosting *Celebrating Botanical Research!* from June 5-7, 2015 at Smith College in Northampton, MA. At this free event, botanists of northeastern North America will showcase their activities and research, and botanical societies will brainstorm on opportunities for future research and collaboration. Click here for more info, or submit any questions to conference@rhodora.org.

The <u>Association of State Wetland Managers</u> (ASWM) is hosting a free webinar entitled **Riverine/Riparian Wetland Restoration** on **Tuesday, June 9, 2015**, beginning at 3:00 PM. Click <u>here</u> to register or for more info on this and other forthcoming ASWM-sponsored webinars, and <u>here</u> for more info and to access archived versions of past ASWM-sponsored webinars, including <u>How to Prepare a Good Wetland Restoration Plan</u> (from 11/4/14) and <u>How Restoration Outcomes are Described, Judged and Explained</u> (from 9/9/14).

A workshop entitled <u>Urban Stream Stabilization & Rehabilitation Workshop: Investigation – Design – Construction</u> is scheduled to take place from **June 15-19, 2015** in Pittsburgh, PA. The instructors are Dr. Bruce Dickson (Aquatic Ecologist, Applied Geology and Environmental Science); Dave Derrick (VP/Potomologist, River Research & Design, Inc.) and Dave Hails (Designer/Builder, Ecological Restoration, Inc.). The workshop includes four days of classroom instruction and one day out in the field at an urban stream (Nine Mile Run). Click <u>here</u> for more info on the workshop and <u>here</u> for an article describing the work done at Nine Mile Run.

> Return to top of document

Online Resources

(Descriptive text provided is obtained from the web pages themselves.)

Restore, the <u>U.S. Forest Service (USFS)'s Region 5 (Pacific Southwest)</u>'s video podcast series on Ecological Restoration, highlights the people, projects, and the associated inroads and successes that USFS region is making to sustain the health, diversity and productivity of its forests and grasslands. Videos in this series include: <u>Episode 10: Aquatic Organism Passage Restoration</u>: "The Forest Service is removing barriers that prevent fish and other aquatic species from moving up and down stream corridors. By replacing culverts and building bridges, hundreds of miles of habitat will eventually be restored."; and the recently posted <u>Episode 17: Tree-Tipping</u>: "Tree-tipping is a special technology used by the US Forest Service in our restoration efforts. By placing large woody debris into streams, the Forest Service provides better habitat for fish and other aquatic species."

The <u>Restoration Webinar Series</u>, put on by a partnership between the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Fish and Wildlife Service, "showcase innovative restoration techniques and best management practices while discussing our biggest restoration challenges and success". Click <u>here</u> to download the webinar schedule for January-June 2015, and <u>here</u> to access archived versions of past webinars, including *Explaining Stream Behavior to the Public* (from 10/16/14) and *Scaling up Estuary and Floodplain Restoration: The Case for Including Non-Ecological Community Benefits* (from 12/2/14). Click <u>here</u> to be added to the Restoration Webinar Series Listsery to receive email notification of future webinars in this series. Contact Matthew Patterson [(304) 876-7473, <u>matthew patterson@fws.gov</u>] for more info. [See also <u>The Human Side of Restoration Series</u> of webinars, hosted by the U.S. Forest Service, including <u>Ecological Restoration For All: Environmental Justice in Planning and Implementation</u> (from 11/6/14) and <u>The Restoration Economy: Cost-benefit Analyses and Payments for Ecosystem Services</u> (from 12/4/14).

This past January, President Obama signed an executive order (#13690) significantly changing the standards for federal agency actions located in floodplains. The Order proposes a new Federal Flood Risk Management Standard, which is expected to help reduce flood losses and taxpayer costs. The new standard incorporates a "freeboard", and may be implemented by applying the freeboard or using science-based future conditions that consider changes in land use, climate change informed hydrology, or future sea level rise. Alternatively, the standard could be met by building to the 500-year (.2 percent annual chance) flood elevation. The standard also requires that where possible, agencies shall use natural systems, ecosystem processes and nature-based approaches when developing alternatives for consideration. Federal projects (construction) as well as activities like grants, permits, etc., are expected to be affected by the Order. Click here to read a summary of the order on the FEMA website, and here for a briefing on the new standard from the Association of Flood Plain Management Standard will be open until April 6, 2015; click here for more info.

Is Your Community Flood Ready? Six new videos are now available to help you and your community prepare for flooding. Experts speak about topics such as Why Rivers Move & Erode in the first place, how to build Better Culverts & Stream Crossings, Stabilizing Streambanks Naturally, and more. These videos are part of a <a href="new State of the Property of State Of State

<u>VT website</u> (floodready.vermont.gov) that will help community leaders prepare for and minimize flood damage and qualify for post-disaster funding. While this website is aimed at VT communities, much of its content is applicable to other rivers in the Northeast (e.g., the info about making infrastructure and property more flood resilient). The Connecticut River Watershed Council (which helped on this project) has set up a <u>link</u> to view all six videos.

The U.S. EPA recently announced the release of the <u>Climate Adjustment Tool for the Stormwater</u> <u>Management Model</u> as part of the <u>President's Virtual Climate Resilience Toolkit</u>. This new tool helps engineers and planners to <u>evaluate the performance of water infrastructure</u>, while taking into consideration future effects of climate change, such as more frequent high-intensity storms and changes in evaporation rates of seasonal precipitation. The <u>Stormwater Management Model</u> is a downloadable, online stormwater simulation model. Click here for more info.

The <u>U.S. Army Corps of Engineers (ACOE)</u>, New England District's <u>Update Report for Massachusetts</u>, issued January 31, 2015, provides recent status reports on past, ongoing and proposed projects involving the Army Corps in the Commonwealth, many of which involve rivers and/or wetlands. Click <u>here</u> to read it and <u>here</u> for more info on the ACOE's work in Massachusetts. [Click <u>here</u> for info on the <u>ACOE's new General Permit</u> for work in and affecting wetlands and waterways in Massachusetts, and <u>here</u> to access a an archived version of a <u>recent webinar on that topic</u> held on 3/12/15 and hosted by the Environmental Business Council.]

Here's an update to info in *Ebb&Flow* #21 regarding the <u>USGS' Historical Topographic Map Collection</u> (HTMC), **high-resolution scans of more than 178,000 historical topographic maps of the U.S.**. There's a new online interactive website, the <u>USGS Historical Topographic Map Explorer</u>, which greatly facilitates access to these historical maps. Click <u>here</u> to try it out.

"Well-designed parks and trails are valued parts of our environment. Research examining the connection between parks, trails, and health has helped identify the value that parks provide to people. Parks and trails can promote physical activity and community engagement; and provide both environmental and mental health benefits. When well-designed, parks have been shown to reduce stress and foster community interaction. They can also protect sensitive lands such as flood plains and steep slopes." In addition: parks and trails can provide resources most communities need when addressing many of today's public health problems. And when questions arise about community policies or projects related to parks and trails—particularly, how to maximize their positive impact on public health—a health impact assessment (HIA) can provide answers. The *Parks and Trails Health Impact Assessment Toolkit*, recently developed by the Centers for Disease Control and Prevention (CDC), is intended to help communities create parks with expanded health benefits. The toolkit includes resources that provide data about health issues, recommendations from existing HIAs, and citations that support the recommendations. Click here for more info.

Looking to the Future – Massachusetts Land and Parks Conservation and Their Future (aka the 2014 Land Report), recently released by the Massachusetts Executive Office of Energy and Environmental Affairs (EEA) and its partners, "is a story about the land of Massachusetts and the many values it has to the 6.5 million residents who call Massachusetts home. It's also a story about the dozens of dedicated people who work and volunteer to help build parks and conserve land for present and future generations and improve the quality of life in communities. This report is especially written for the new generation of conservationists who are already making their mark in the conservation of land and parks in Massachusetts and their teachers who are inspiring this new generation of young conservationists every day". Click here to download the 21-page report.

Innovation in Wildlife and Transportation Coordination: Linking Landscapes for Massachusetts Wildlife, an article which ran in a recent edition (No.3, 2014) of the Mass. Division of Fisheries and Wildlife (DFW)'s Massachusetts Wildlife Magazine, points out that collisions with wild animals trying to cross roadways can lead to bad outcomes for drivers, passengers, and their vehicles, as well as for any struck animals. Co-written by David Paulson of DFW and Tim Dexter of the Mass. Department of Transportation (MassDOT), the article reports on the shared interest of both agencies in reducing wildlife collisions and the productive working relationship they have formed to

identify wildlife crossing hotspots and then implement modifications to highways, bridges, culverts and signage to reduce the likelihood of vehicles hitting animals. Click here to read the article, and here for more info on the Linking Landscapes for Massachusetts Wildlife Program, where you can learn more about efforts being undertaken to reduce roadway wildlife mortality and how you can volunteer to take part in that effort.

Last but not least: **DER's Technical Resources webpage**, containing online versions of the *Massachusetts Stream Crossing Handbook* and *Poster* and nine *Fact Sheets on Functions and Values of Riparian Areas*, now has a just-updated version of *10 Ways Conservation Commissions and Others Can Help Protect Coldwater Streams and Their Inhabitants*, a handout intended to help citizens and municipal officials protect streams supporting naturally-reproducing populations of **wild trout** and other "coldwater" fisheries species (aka "coldwater fishery resources" or CFRs). One of the updates to the handout refers to new information now available on the <u>Mass. Division of Fisheries and Wildlife</u>'s (DFW)'s <u>Coldwater Fish Resources (CFR) web page</u>, where you can now access a <u>statewide list</u> (sortable by watershed) and <u>interactive map</u> showing the location of all CFR streams. (Click <u>here</u> to see the protocol DFW utilizes for evaluating and designating CFR streams.) Check DFW's CFR list and map at your convenience to learn about wild trout/CFR streams in your community /watershed. If you know of a wild trout stream that **isn't** listed or mapped by the DFW, you are encouraged to bring that to their attention (see p.3 of the "10 Ways" handout for how to do that).

> Return to top of document

Non-government On-line Resources

(in rough alphabetical order — the following are offered for information purposes only and are not an endorsement of the items listed below. Descriptive text provided is obtained from the web pages themselves.)

GoTrustees App

http://www.thetrustees.org/places-to-visit/app

The Trustees of Reservations (TTOR) recently announced its release of *Go Trustees*, a free app available for both Apple and Android devices. Whether you live in Massachusetts, or are just visiting, *Go Trustees* will help you discover special places around the state to hike, bike, run, or, just be in nature. Find a TTOR property near you with the GPS-powered map or search by zip. Then, use integrated driving directions to get there. Discover special features, flora, and fauna at each property, plus learn about special events and cool things to do like kayak and canoe trips, culinary classes, etc. Roam trails with confidence using interactive trail maps. The app also works in offline mode; most features, including trail maps, will work even when you don't have cell reception or Wi-Fi. Click here for more info.

Grassroots Environmental Education

http://grassrootsinfo.org

The mission of this Port Washington, NY-based group is "to inform the public about the health risks of common environmental exposures and to empower individuals to act as catalysts for change in their own communities. We strive to accomplish this using science-driven arguments for clean air, clean water and a safe food supply, and for stricter regulation of chemical toxins. We believe that positive and lasting change is best accomplished through grassroots initiatives". Resources at this page include: the Healthy Lawn Program, which seeks to promote organic and/or non-toxic lawn care practices; info on the effect of pesticides on pets; and a community exposures web page, which includes the fact sheet 10 Things You Should Know about Synthetic Turf.

Green 2.0

http://diversegreen.org

Green 2.0, aka DiverseGreen, "is an initiative dedicated to increasing racial diversity across mainstream environmental NGOs, foundations and government agencies. Green 2.0 leaders are motivated by both a desire for a more diverse, environmental movement with less discrimination on its merits, and a movement that integrates equity into the work, and believe that these changes will better position organizations to win environmental battles and produce fairer environmental outcomes for those most impacted (people of color)". Resources at this page include links to info such as New Voices at the Table: Welcoming the Next Generation of Board Leaders and Overcoming Hidden Barriers to Board Diversity and Inclusion. [Click here to read a recent article seeking to increase diversity within environmental groups and agencies posted to The Chronicle of Philanthropy's website.]

Idealware

http://idealware.org

"While most [nonprofits] know that software can streamline their processes and help fulfill their missions more efficiently and effectively, lean staffing and tight budgets mean they're unable to devote the time necessary keep up with new technologies and find the right tools. Idealware, a 501(c)(3) nonprofit, provides thoroughly researched, impartial and accessible resources about software to help nonprofits make smart software decisions. From basic questions (e.g., how to use software to help manage emailing hundreds of people at once), to more complex (like understanding the role of social networking and mobile phone text-messaging in fundraising strategy), Idealware serves as a trusted source for answers". Resources include searchable topics (like <u>fundraising</u>), <u>articles</u>, <u>online training</u>, a <u>weekly blog</u>, and an opportunity to subscribe to Idealware's <u>free monthly newsletter</u>.

Making Decisions for Headwater Stream Conservation at the Watershed Scale https://sites.google.com/site/headwaterstreams

Headwater stream ecosystems are important not only because of their unique aquatic biodiversity, but also because they influence the availability of clean water, mitigate flood control, and have recreational value to hikers and anglers. While there is growing evidence that headwater stream ecosystems are especially vulnerable to changing climate and land use, their conservation is challenged by the need to address the threats at a landscape scale, often through coordination with multiple management agencies and landowners. This website is the online home of a <u>USGS-funded project</u>, coordinated by <u>Rachel Katz</u>, which is working with natural resource organizations throughout the <u>Deerfield and Merrimack Watersheds</u> to identify the impediments to effective headwater stream conservation and explore how alternative forms of collaboration may influence ecological outcomes.

Native Plant Network

http://www.nativeplantnetwork.org

The Native Plant Network's goal "is to provide technical and practical information on the growing and planting of North American (Canada, US, and Mexico) native plants for restoration, conservation, reforestation, landscaping, roadsides, and so on". The Network is devoted to the sharing of information on how to propagate native plants, and has helpful info for that purpose posted in its <u>Propagation Protocol Database</u>. You can search the database for species you have interest in as well as upload protocols of species you successfully grow. Another of the Network's products is the <u>Native Plants Journal</u>, is now published by the University of Wisconsin Press.

Net Blue

http://www.allianceforwaterefficiency.org/net-blue.aspx

Net Blue is a collaborative initiative of the Alliance for Water Efficiency (AWE), the Environmental Law Institute (ELI), and River Network to support sustainable community growth. The project partners are working together to develop a model ordinance communities can tailor to create a water demand offset approach that meets their needs. The project partners will work with communities in different regions throughout North America to develop the ordinance components and to ensure it is adaptable in political climates, legal frameworks, and environmental challenges. The project partners are seeking additional pilot/partner communities to participate. As part of the first phase of work, the Alliance for Water Efficiency released its report, Water Offset Policies for Water-Neutral Community Growth, which reviewed communities throughout the U.S. that currently have a water demand offset policy or water neutral growth policy in place. These policies require offsetting the projected water demand of new development with water efficiency measures to create a neutral impact on overall service area demands and water use. The report also contains a literature review related to this topic, and info on communities that had a water demand offset policy in the past. Click here to download the report and here to read the press release.

Philanthropedia

http://www.myphilanthropedia.org

A division of <u>Guidestar</u>, a comprehensive source of nonprofit organizations and funders, Philanthropedia's mission is to improve nonprofit effectiveness by **directing money to and facilitating discussion about expert recommended, high-impact nonprofits**. The intent is to boost the amount and effectiveness of nonprofit funding, practices, transparency and accountability. Nonprofits in various fields (like <u>water</u>, <u>sanitation and hygiene</u>) are ranked according to <u>expert crowdsourcing</u>, to help inform prospective donors, as well as enable nonprofits to see how they are perceived from outside the organization. Resources at this site include a <u>Guide to Better Giving</u>.

Society for Nonprofits

https://www.snpo.org/funding

The Society for Nonprofits "is a 501(c)(3) organization that has been serving the nonprofit sector for over 30 years. We provide nonprofit executives, fundraisers, volunteers, board members, consultants, and other professionals with the resources and information needed to work effectively and efficiently towards accomplishing your mission. Some of our most valued resources include: Nonprofit World magazine, Funding Alert, GrantStation Membership, online training, and job listings. Although a large percentage of our funding comes from memberships, we proudly offer many of these resources at no cost." The Society for Nonprofits has also developed a ten-part Fundraising Guide that offers a detailed strategy for assessing your organization's readiness for fundraising, developing a fundraising strategy, considering available grants, and more. Click here for details. Part 2, "Are You Ready for Fundraising?" can provide a valuable reality check as you plan this year's fundraising.

Sustainable Waters - Solutions in a Time of Scarcity

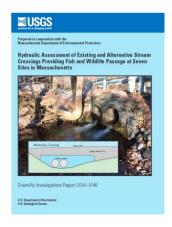
http://www.sustainablewaters.org

Set up by <u>Brian Richter</u>, Director of Global Freshwater Strategies for The Nature Conservancy, the Sustainable Waters website provides a global water education service by sharing accurate and up-to-date information about water scarcity, news of water shortages, and information and tools for solving water problems. Resources available at this site include a <u>blog</u>, a <u>publications page</u> and a <u>worldwide map</u> showing the location of water shortages.

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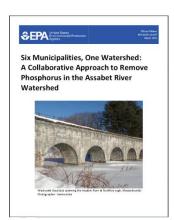
Publications, Videos, etc.

(the following are offered for information purposes only and are not an endorsement of the items listed below. Descriptive text provided is obtained from the web pages themselves.)

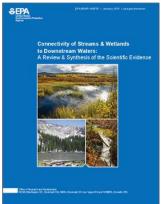


In <u>Hydraulic Assessment of Existing and Alternative Stream Crossings Providing Fish and Wildlife Passage at Seven Sites in Massachusetts</u>, a report released last year by the U.S. Geological Survey, seven existing road crossing structures at streams in Massachusetts were evaluated hydraulically and compared to hypothetical alternative structures designed for **Aquatic Organism Passage** (AOP) using standards developed by the <u>Massachusetts River Continuity Partnership</u>. Hydraulic simulations made for flood flows indicated appreciable backwater upstream from the structure, which exacerbates upstream flooding and causes road overflow in many cases. The existing structures also create an impediment to AOP by failing to meet standards for openness, height, span, and velocity. In contrast, simulated hypothetical road crossing structures that provide for fish and wildlife passage by meeting or exceeding the AOP standards were also able to convey most simulated AEP flood flows without causing appreciable

backwater upstream from the structure. The simulations of the alternative structures also indicate that, in addition to improved passage for fish and wildlife, the structures are more resilient to large floods and provide a greater buffer to uncertainties and potential changes in flood flows than the existing stream-crossing structures. Click here to download the report or for more info.



Six Municipalities, One Watershed: A Collaborative Approach to Removing Phosphorus in the Assabet River Watershed, recently published by the EPA, is a case study about a consortium of four wastewater treatment facilities along the Assabet River in Massachusetts that selected four different phosphorus removal technologies and successfully lowered effluent concentrations to less than 0.1 milligrams per liter of phosphorus. As a result, phosphorus loads to the river have decreased more than 90 percent and water quality has improved. Each facility examined available technologies, costs, operational concerns and other factors before choosing the best option based on its own selection criteria. Click here to download the case study; see the EPA's Toolkit of Resources to Provide States with Flexibility in Adopting and Implementing Numeric Nutrient Criteria for related info.



This past January, The U.S. Environmental Protection Agency's (USEPA) Office of Research and Development released a final version of the report *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence*. The report reviews more than 1,200 peer-reviewed publications and summarizes current scientific understanding about the connectivity and mechanisms by which streams and wetlands, singly or in aggregate, affect the physical, chemical, and biological integrity of downstream waters. The EPA, along with other federal agencies and states, can use this scientific report to inform policy and regulatory decisions, including the Clean Water Act Rule (previously referred to as "Waters of the U.S." or WOTUS) being developed by EPA and the U.S. Army Corps of Engineers. Click here to download the report and read a bulleted summary of the report's findings; here to read a related blog posting from the EPA and here for more on EPA's recent

Congressional testimony; and <u>here</u> to read a blog posting about the report on the <u>SwampSchool.org</u> website; and <u>here</u> to see several videos on this topic. [See also <u>Where Rivers Are Born: The Scientific Imperative For Defending Small Streams and Wetlands</u> and <u>Fact Sheet #9: The Importance of Protecting Riparian Areas along Smaller Brooks and Streams</u>.]



Rising Waters, Rising Threat: How Climate Change Endangers America's Neglected Wastewater Infrastructure, a report released last fall by the Center for American Progress, recommends taking steps to keep waters clean and protect public health from disruptions and overflows in wastewater treatment systems. These steps include integrating methods to address climate risk into all new wastewater infrastructure, financing resilience improvements through state infrastructure banks, prioritizing resilience in state revolving-fund investments, and investing in green infrastructure and the protection and restoration of wetlands and coastal ecosystems to protect and supplement wastewater treatment systems. Click here to download the report and here for more info.



"Green infrastructure" uses vegetation and soil to manage rainwater where it falls. By weaving natural processes into the built environment, green infrastructure provides not only stormwater management, but also flood mitigation, aesthetic benefits, and much more. Late last year, the Mass. Bays Program released a final version of a handbook intended to promote the use of green infrastructure techniques (like rain gardens) to treat and control stormwater in coastal communities. Coastal Stormwater Management Through Green Infrastructure: A Guidebook for Municipalities, developed in partnership with EPA, is targeted towards departments of public works and planning, conservation commissions and agents, and nonprofits concerned about water quality in coastal ecosystems. [While the document was prepared for coastal communities, much of its content is also relevant to inland communities.] Click here to download the full handbook, here to download a fact sheet relating to the handbook,

and <u>here</u> to view a slide presentation about the handbook made at several workshops in the MassBays planning area last fall. [Click <u>here</u> to read <u>Mass. Bays' Winter 2015 News from the Bays newsletter.</u>]



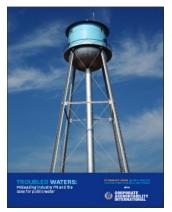
Getting to Green: Paying for Green Infrastructure, Finance Options and Resources for Local Decision-Makers, published last December by the EPA, summarizes various funding sources that can be used to support stormwater management programs or finance individual projects. Each type of funding source is illustrated by several municipal programs and contains a list of additional resources. A comparative matrix is included which describes the advantages and disadvantages of the various funding sources. Click here to download the document and here to download a related document, also published last December, entitled A Business Model **Framework for Market-Based Private Financing of Green Infrastructure**, funded by the Great Lakes Protection Fund. [Click here to download the newly-released document Green Infrastructure Opportunities that Arise During Municipal Operations, which provides case studies where small to midsize communities have

incorporated green infrastructure components into work they are doing in public spaces. The document demonstrates how integrating green infrastructure methods can enhance retrofits and maintenance projects and provide other multiple community benefits.]

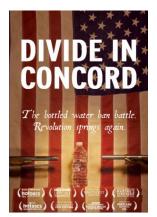


Wanted: Green Acres, a new Issue Brief released by the Natural Resources Defense Council (NRDC), provides a case study of Philadelphia's innovative approach to sourcing cost-effective green infrastructure retrofit opportunities on private land through the Greened Acre Retrofit Program (GARP). The new report documents the "how" and "why" of the GARP, and focuses on the elements that differentiate the new program from traditional green infrastructure subsidy programs. These include an emphasis on project aggregation, a competitive award process, and utilization of a payfor-performance arrangement to ensure long-term maintenance of the green stormwater

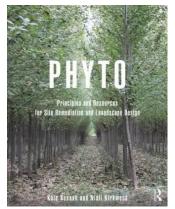
assets on private property. Click <u>here</u> to download the document and <u>here</u> for related info. [Click <u>here</u> to learn about a Philadelphia-based study showing a **positive correlation between the implementation of green infrastructure and a drop in criminal activity**.]



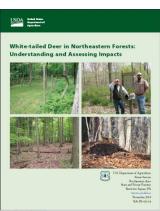
Privatizing water supplies may be on the wane. According to the American City and County e-newsletter, since 2003, various U.S. municipalities (including Atlanta and Indianapolis) have reclaimed control of their water supplies, ending public private partnerships (PPPs) in those cities. According to a new report, *Troubled Waters:*Misleading industry PR and the case for public water, produced by Boston-based Corporate Accountability International and the Public Services International Research Unit, thirty-three cities have re-municipalized (or taken back control of) their water systems – five in the past year. In 2014, ten more have set the legal wheels in motion to regain control. Globally, the number of cities re-municipalizing water exceeds one hundred. Click here to download the report, and here to read an article from the Nonprofit Ouarterly about the report.



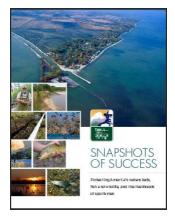
In 1775, Concord patriots fired the infamous "shot heard round the world" that began a Revolution and defined a nation. Now a local eighty-four year-old woman has waged another seemingly unwinnable battle. *Divide in Concord* is a feature-length documentary that follows the entertaining tale of banning bottled water in small town America. For three years, Jean Hill has been trying to rid the town of single-serve plastic bottles of water. Complete with strong opposition from local merchants and the bottled water industry, Jean is once again leading the controversial crusade. Divide in Concord has won numerous awards, including "Best New England Film" at the 2014 Newburyport Documentary Film Festival. Click here to read an article about and view a trailer of the movie, and click here to read the press kit, which contains more detailed info. [A screening of *Divide in Concord* is scheduled for **Sunday, March 22, 2015** in Boston; click here for more info.]



Phytotechnology, the science of using plants to clean up contaminated soil, is a planting technique that generally happens after a site is already contaminated. In the new book *Phyto: Principles and Resources for Site Remediation and Landscape Design*, Boston-based co-authors Niall Kirkwood and Kate Kennen explore the concept of "phyto-buffering", a technique that uses plants to clean sites where we suspect pollution might happen, but hasn't yet. *Phyto* is the first book to address the benefits of phytotechnologies from a design point of view, tackling complex scientific terms and chemical equations and creating an easy-to-understand reference book for those involved in creating planting solutions. Filled with tables, photographs and detailed drawings, Kirkwood and Kennan guide the reader through the process of selecting plants for their environmental benefits as well as their aesthetic qualities.



White-Tailed Deer in Northeastern Forests: Understanding And Assessing Impacts, recently published by the U.S. Forest Service and authored by Mass.-based botanist Thomas J. Rawinski, documents and guides monitoring of impacts to forests from white-tailed deer. With numerous photographs to illustrate the impacts the author discusses, this paper is a guide to learning to read a forest, and how to observe the impacts deer may be having. To the untrained eye, a forest that is gradually degrading may still be beautiful, but Rawinski helps point out what is missing, so that steps can be taken to reduce deer impacts before too much damage is done. Click here to download the report. [Rawinski's related publications include: Impacts of White-Tailed Deer Overabundance in Forest Ecosystems: An Overview (2008) and Deer and Forests, and the People Who Love Them, published in Massachusetts Wildlife Magazine.



Across the country, hunters and anglers are leading important efforts to improve the quality and quantity of our water resources. *Snapshots Of Success: Protecting America's Watersheds, Fish And Wildlife, and The Livelihoods of Sportsmen*, a report recently released by the Theodore Roosevelt Conservation Partnership (TRCP), showcases ten examples of collaborative, sportsmen-led efforts and the importance of federal funding that fuels them. [Click here and here for info from the TRCP re the status of federal funding relating to water, wetlands and wildlife habitat conservation.]

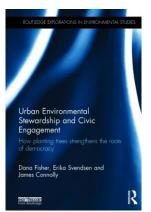


Produced by the River Management Society in partnership with the National Park Service's Rivers, Trails and Conservation Assistance

Program (NPS RTCA), Prepare to Launch! Guidelines For Assessing, Designing & Building Access Sites For Carry-In

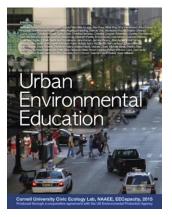
Watercraft is designed to help facility and trail planners and park and recreation project leaders plan and build or improve a waterway access site tailored to the needs of canoeists, kayakers, tubers, stand-up paddlers, or small craft sailors. It guides a reader through the development process from conception to design creation, and provides a variety of launch construction options. Click here to download the publication, here for more info, and here to access an archived

presentation on Prepare to Launch! by Lelia Mellen and Corita Waters of the NPS RTCA.



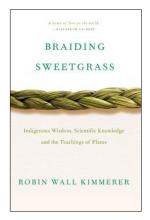
Once considered the antithesis of a verdant and vibrant ecosystem, **cities** are now being hailed as highly efficient and complex social ecological systems. Emerging from the streets of the post-industrial city are well-tended community gardens, rooftop farms and other viable habitats capable of supporting native flora and fauna. At the forefront of this transformation are the citizens living in the cities themselves. As people around the world increasingly relocate to urban areas, the new book *Urban Environmental Stewardship* and Civic Engagement: How Planting Trees Strengthens the Roots of Democracy discusses how they engage in urban stewardship and what civic participation in the environment means for democracy. Drawing on data collected through a two-year study of volunteer stewards who planted trees as part of the MillionTreesNYC initiative, this book examines how projects like this can make a difference to the social fabric of a city. It analyses quantitative survey data along with qualitative interview data that enables the

volunteers to share their personal stories and motivations for participating, revealing the strong link between environmental stewardship and civic engagement. Click <u>here</u> to order the book or for more info.



Urban environmental education programs contribute in different ways to human well-being and environmental integrity in cities. These programs focus, for example, on community environmental leadership, positive youth development, urban natural areas, urban environmental restoration, green infrastructure, sustainable urban planning, green jobs, environmental art, urban agriculture, and environmental justice. Edited by Alex Russ and written by environmental educators in the U.S., most of whom participated in the <u>EECapacity</u> project's "Urban Environmental Education" online learning community from April–December 2014, the new publication <u>Urban Environmental Education</u> is intended to promote professional development of its authors through chapter writing, networking, and generating new ideas for the field. Another objective is to contribute to the field of urban environmental education by reflecting on relevant concepts and

practices in cities. The 160-page book is <u>available for free download</u> at the Web site of the <u>North American</u> Association for Environmental Education.



Just released in paperback, <u>Braiding Sweetgrass: Indigenous Wisdom, Scientific</u>

<u>Knowledge and the Teachings of Plants</u>, written by <u>SUNY College of Environmental</u>

<u>Science and Forestry Professor Robin Wall Kimmerer</u>, Director of SUNY/ESF's <u>Center for Native Peoples and the Environment</u>, is "an inspired weaving of indigenous knowledge, plant science, and personal narrative from a distinguished professor of science and a Native American whose previous book, <u>Gathering Moss</u>, was awarded the John Burroughs Medal for outstanding nature writing. As a botanist and professor of plant ecology, Kimmerer has spent a career learning how to ask questions of nature using the tools of science. As a Potawatomi woman, she learned from elders, family, and history that the Potawatomi, as well as a majority of other cultures indigenous to this land, consider plants and animals to be our oldest teachers. In <u>Braiding Sweetgrass</u>, Kimmerer brings these two lenses of knowing together to reveal what it means to see humans as 'the younger brothers of creation.' As she

explores these themes she circles toward a central argument: the awakening of a wider ecological consciousness requires the acknowledgement and celebration of our reciprocal relationship with the world. Once we begin to listen for the languages of other beings, we can begin to understand the innumerable life-giving gifts the world provides us and learn to offer our thanks, our care, and our own gifts in return". Click here to order the book or for more info, including audio of the author reading excerpt from the book.

> Return to top of document





NOTE: The <u>Mass. Watershed Coalition</u> (MWC)'s <u>"mwc-list" listserv</u>, a great source of time-sensitive and other info on river- and watershed-related funding and job opportunities, upcoming events, recent articles and more,

is now back in operation, having migrated from its former host (<u>topica.com</u>) to <u>simplelists.com</u>. Click <u>here</u> to sign up. Highly recommended! In the meantime, archived messages posted to the topica.com-hosted "mwc-list" listserv are still accessible and readable by anyone by clicking <u>here</u>. You might also want to check out the <u>MWC's</u> Runoff Remedies blog.



Coordinated by the Mass. Executive Office of Energy and Environmental Affairs (EEA), *The Great Outdoors Blog* is dedicated to Massachusetts outdoor activities, events, wildlife, state parks and local agriculture that features a **calendar of**Massachusetts outdoor events. Learn about native marsh species, guides for the state's best paddling adventures, and about wetlands restoration projects that protect recreational and commercial fisheries. [Click here for more about how to connect to EEA, DER and other state environmental programs through social media.]

Last but not least:







The <u>Massachusetts Environmental Trust</u> (MET) provides funding to many river, wetland and other water resources protection and restoration projects throughout the Commonwealth. A major source of MET's funding comes from the sale of <u>environmental license plates</u>. Besides the "Right Whale and Roseate Tern" plate (click <u>here</u>, see p. 13), sales of the "Fish and Wildlife" plate (click <u>here</u>, see p.12), depicting a Brook Trout, and the Blackstone Valley plates (click <u>here</u>, see p.10) help fund MET's grant-making programs. (By the way, these three are he only Mass. specialty license plates that exclusively fund environmental programs). Getting an environmental plate is easy and can be done on-line by clicking <u>here</u>, or in person at <u>your local Registry of Motor Vehicles office</u>.

Does your car have an environmental license plate?

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Tim Purinton, Director Hunt Durey, Deputy Director Carrie Banks, Stream Team and Westfield River Wild and Scenic Committee Coordinator Tim Chorey, Stream Continuity Specialist Russell Cohen, Rivers Advocate Michelle Craddock, Flow Restoration Specialist Cindy Delpapa, Stream Ecologist Kristen Ferry, Aquatic Habitat Restoration Specialist Eileen Goldberg, Assistant Director Alex Hackman, Project Manager Franz Ingelfinger, Restoration Ecologist Georgeann Keer, Wetland Scientist and Project Manager Beth Lambert, River Restoration Program Manager Laila Parker, Flow Restoration Program Manager Megan Sampson, Program Administrator Nick Wildman, Priority Projects Coordinator **************

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